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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,523

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Thomas W Hodge

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KLARQUIST SPARKMAN, LLP  
121 S.W. SALMON STREET  
SUITE 1600  
PORTLAND, OR 97204

EXAMINER

BOESEN, AGNIESZKA

ART UNIT

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1648

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/535,523	<b>Applicant(s)</b> HODGE ET AL.	
	<b>Examiner</b> AGNIESZKA BOESEN	<b>Art Unit</b> 1648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,9,12,15-41 and 43-50 is/are pending in the application.
- 4a) Of the above claim(s) 1-6,9,12,15-41,47 and 48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 43-45,49 and 50 is/are rejected.
- 7) ☒ Claim(s) 46 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/11/2007, 9/7/2005, 5/17/2005</u> .                          | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This Non-Final Office Action is responsive to the communication received September 5, 2008.

#### ***Election/Restrictions***

Applicant's election with traverse of Group II claims 43-50, Rab9 protein, HIV virus and SEQ ID NO: 118 are acknowledged.

Applicants argue that Rab9 proteins encompassed in all present claims share a high degree of homology across species. Thus based upon their shared sequence homology all of the sequences of Rab9 proteins can be included into a single genus and therefore a restriction requirement should be an election of species. Applicants request that SEQ ID NO: 118 and SEQ ID NO: 119 are examined together in the present Application because that would not constitute an undue burden on the Office. In response, the Office notes that SEQ ID NO: 118 and SEQ ID NO: 119 do not appear to be structurally related. SEQ ID NO: 118 is 838 nucleotides in length and SEQ ID NO: 119 is 820 nucleotides in length. Furthermore, both sequences comprise multiple miscellaneous features, wherein "n" is A, G, C or T, as shown in the sequence listing. Thus considering the presence of the miscellaneous feature in SEQ ID NO: 118 and SEQ ID NO: 119 it is the Office position that each sequence further comprises multiple sequences comprising specific nucleic acid bases. A separate sequence search would be required in order to search SEQ ID NO: 119 and each and every sequence from SEQ ID NO: 1-227. Upon further consideration the restriction requirement only between SEQ ID NO: 118 and SEQ ID NO: 119, is withdrawn. SEQ ID NO: 118 and SEQ ID NO: 119 are considered species since both sequences are listed together in Table 1 as Ras oncogene family member Rab9. Thus, SEQ ID NO: 118 and SEQ ID

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NO: 119 are subject to species election. However the restriction requirement with regard to the remaining sequences is maintained. It is noted that the species of SEQ ID NO: 119 will be examined once the generic claim is indicated allowable. The restriction requirement is deemed proper and is made FINAL.

Claims 1-6, 9, 12, 15-41, 47 and 48 are withdrawn because the claims are drawn to non-elected inventions. Claims 43-46, 49 and 50 are under examination in this Office Action.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 5/11/2007, 9/7/2005 and 5/17/2005 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the Examiner.

### ***Claim Objections***

**Claim 43 is objected to because of the following informalities: the indicated claim contains reference to Table 1.**

(See MPEP § 2173.05(s)). Where possible, claims are to be complete in themselves. Incorporation by reference to a specific figure or table “is permitted only in exceptional circumstances where there is no practical way to define the invention in words and where it is more concise to incorporate by reference than duplicating a drawing or table into the claim. Incorporation by reference is a necessity doctrine, not for applicant’s convenience.” *Ex parte Fressola*, 27 USPQ2d 1608, 1609 (Bd. Pat. App. & Inter. 1993).

### ***Claim Summary and Interpretation***

Claims are drawn to a method of identifying a compound that decreases binding of viral protein and decreases viral infection comprising contacting the host cell protein with the viral

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protein and the test compound, wherein the host cell protein is in Table 1 and the viral protein is HIV, Ebola or influenza A protein and determining whether binding of the viral protein to the host protein is decreased in the presence of the test compound. The viral protein comprises the virus and the viral protein is a viral envelope protein. The method comprises expressing the host protein in a cell and contacting the host protein with the viral protein and a test compound comprises exposing the cell to the viral protein and the test compound. The host protein of the viral protein comprises a label, and determining whether binding is decreased comprises detecting an amount of the label.

Claims broadly recite viral host proteins and refer to Table 1 which recites over 100 different host proteins. It is the Examiner's interpretation that the host protein broadly encompassed by the present claims is any host protein from Table 1. Applicant elected the invention of host protein Rab9 however claim 43 does not recite Rab9 protein, thus the claim is construed as being broadly drawn to any host protein from Table 1. It is noted that Table 1 recites T cell receptor among other proteins.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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**Claims 43-45, 49 and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu et al. (US Patent Application Publication 2003/0166870 A1).**

Wu et al. disclose methods of identifying an agent that decreases binding of HIV envelope protein to CCR5 chemokine receptor thereby decreasing the HIV virus infecting the cell through the CD4 T cell receptor, the methods comprise contacting the T cell receptor host cell protein with the envelope protein of an HIV virus, the test compound and an antibody binding CCR5, and determining whether binding of the viral protein to the host protein is decreased in the presence of the test compound/agent (see claims 57-68 and [0083], [0084], [0110], [0112], [0196], [0198]). The methods disclosed by Wu et al. comprise expressing the host protein in a cell and contacting the host protein with the HIV envelope protein and a test compound (see [0012], [0013], [0021], [0061], [0078], [0086], [0155] and [0156]. The viral protein comprises a label and the method comprises detecting the amount of the label in order to determine whether the binding of the HCV envelope protein to T cell receptor has decreased (see [0084]).

Thus by this disclosure Wu et al. anticipate the present claims.

### ***Claim Objections***

Claim 46 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

SEQ ID NO: 118 is free of prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AGNIESZKA BOESEN whose telephone number is (571)272-

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8035. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell can be reached at 571-272-0974. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Agnieszka Boesen/  
Examiner, Art Unit 1648